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## 25. OBSERVATIONS ON TWO CATFISH SPECIES FROM BANGALORE DISTRICT, KARNATAKA

While working on fish collections from Bangalore district, six catfish species were encountered of which two species *Sperata aor* (Hamilton) and *Mystus cavasius* (Hamilton) need special mention, since they do not conform to the keys provided, nor agree with the figures given in the standard books, namely Talwar and Jhingran (1991) and Jayaram (1999), used by fish workers.

### *Sperata aor* (Hamilton)

Earlier known as *Pimelodus aor*, the species was placed under various genera, namely *Bagrus*, *Macrones*, *Mystus* (*Osteobagrus*), *Aorichthys*, *Mystus* (*Aorichthys*) and recently under *Sperata* (Ferraris and Runge 1999). Hamilton (1822) described the species with eight barbels, of which two reach the tail fin. He also provided a lucid figure of the same.

This long maxillary barbel and larger gape of mouth chiefly distinguish the species from its Indian congener *S. seenghala* Sykes. Both, Talwar and Jhingran (1991) and Jayaram (1999) provide Sykes' figure (after Day) of *seenghala* with a spatulate snout, smaller gape of mouth and smaller adipose dorsal fin. However, Talwar and Jhingran (1991) have given importance to the length of the barbel while distinguishing the species, which is reflected in the keys as well as in the text figures. Jayaram (1999) has overlooked this character; the *seenghala* (after Day) with smaller maxillary barbels has been figured to illustrate *aor*, and this character has also been deleted from the key. This can lead to misidentification of the species.

Recently, in a revision of the South Asian catfish genus *Sperata*, under which *aor* and *seenghala* (known from Indian waters) are included, Ferraris and Runge (1999), in their key to the four species distributed from Pakistan to Myanmar, further distinguish the species by the length of interneural

shield, number of pectoral fin rays and gill rakers. *S. aor* is characterised by an interneural shield as long as the supraoccipital spine, pectoral fin rays 10 or 11, and gill rakers typically 19-20, while in *seenghala* the interneural shield is longer than the supraoccipital spine, pectoral fin rays 8-9, and gill rakers 13-15. In this species, they remark, the maxillary barbels typically extend no further than to middle of body, at least in larger individuals. Their figures 7 and 8 of synonyms depict specimens with smaller barbels, whereas figure 6 of the presumed holotype (illustration from Sykes) shows a specimen with a long maxillary barbel extending beyond the pelvic fin tip.

The three specimens in the present collection (159-165 mm SL) have longer maxillary barbels extending to middle of caudal, a rounded snout and a long adipose dorsal, and are in full agreement with Hamilton's figure of the species. The gill rakers number 21 and fin rays in pectoral are 10 (nine in the left pectoral fin of one specimen).

### *Mystus cavasius* (Hamilton) (Fig. 1)

*Mystus cavasius* is characterised by a long adipose dorsal starting immediately behind the rayed dorsal and a long maxillary barbel extending to the tail fin. In the keys provided for the species in standard fish books mentioned earlier, the nature of the caudal peduncle is taken into consideration to distinguish *horai* from a species complex, i.e. caudal peduncle narrow/ constricted vs. caudal peduncle fairly high/ not constricted. *M. horai* Jayaram is keyed to species with the former character with the least height of caudal peduncle being 3 times in its length (vs. its least depth about twice in its length being the common feature of a group of 3-5 species). In most books their proportion is given as 1.4



Fig. 1: *Mystus cavasius* (Hamilton)

for *M. cavasius*, which is also reflected in Day's figure of this species. However, in the figure by Hamilton it works out to be 1.9 times. In the two specimens collected from Bangalore (both 120 mm SL) this proportion is quite different, being 2.25 and 2.34; and further, there is also a constriction of the body at the end of the adipose fin (Fig. 1). Though a slender caudal peduncle, 3 times in its length is characteristic of *horai*, this is found to be 1.8 times in the figure provided in the original description. It is also seen in this figure that apart from a notch-like constriction behind the adipose dorsal and vertically below along the ventral profile, the caudal peduncle rather appears to flare out gradually behind this point of constriction.

Another difference observed in the present specimens is its very slender shape. The body depth is 4.46 and 4.72 in

SL (vs. 4.3) and 6.15 and 6.29 in TL (vs. 5.5-6). Slight difference is observed in head length, being proportionately larger and length of fins relatively shorter. In other characters, the specimens agree with the description of *cavasius*. This species is said to attain a length of 18" (Day 1875-1878), whereas Hamilton remarks that it grows to 6" in the Ganges. Until larger specimens and more collections are studied, the present observation serves to extend the range of the proportion of the depth of caudal peduncle in its length to be 1.4 to 2.34 (earlier 1.4).

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### 26. REDESCRIPTION OF *SPALGIS EPIUS* (WESTWOOD) (LEPIDOPTERA: LYCAENIDAE) WITH EMPHASIS ON MALE GENITALIA

#### Introduction

*Spalgis epius*, a very small blue Lycaenid butterfly commonly called Ape Fly (Aitken 1894) is found in tropical India. During a survey in different localities of Jorhat, Assam in northeast India, to evaluate pests infesting bamboos, *Spalgis epius* was reared on a colony of *Chaetococcus bambusae* (Homoptera: Pseudococcidae), a globular coccid. Several adults of both sexes were examined for morphological details. Past studies were incomplete and do not provide a proper identification guide (Evans 1932). Moreover, previous works do not emphasise the structural details of adult genitalia (Bingham 1905). Illustrations were also insufficient and therefore a redescription of *Spalgis epius* is given.

#### *Spalgis epius* (Westwood)

1852. *Lucia epius* Westwood, Green. Diurn. Lep., Vol. II, 502.

1852. *Geridus epeus* Doubleday & Hewitson, Gen. diurn. Lep. (2): 502.

1879. *Spalgis epius* Moore, Proc. Zool. Soc. Lond., p. 137.

1880. *Spalgis epius* Moore, Lep. Cey., Vol. I, p. 71.

1890. *Spalgis epius* Niceville, The Butterfly of India, Vol. III, p. 55.

**General:** The Ape Fly is a small, slender, tailless Lycaenid butterfly with a dark brown upper side having a bluish tinge, and dull brown underside with wavy lines. There